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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,183	12/19/2001	Jeffrey A. Von Arx	279.391US1	6387

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SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402

EXAMINER	
MANUEL, GEORGE C	

ART UNIT	PAPER NUMBER
3762	

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/025,183	VON ARX ET AL.	
	Examiner	Art Unit	
	George Manuel	3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-46 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-46 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5/15/06.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 5/15/06 have been fully considered but they are not persuasive. An understanding of the teachings in the Kraus reference does not support applicant's suggestion that Kraus lacks a teaching or suggestion for a duty cycle as recited in claim 1. Claim 1, requires a far field antenna connected to an electronic circuit for conducting long range radio frequency wireless communication with the implantable medical device according to a duty cycle. A duty cycle is a well-recognized term that relates to the on-time of a transmitter or receiver to the on-and-off-time of the transmitter or receiver. As stated in the Office Action, mailed 8/3/04, a "duty cycle" is merely the ratio of "on" time to "total" time. Clearly long-range transmitter 48 and long-range antenna 49 have an "on" time, otherwise the device is always "off" and non-functional. Any amount of "on" time creates a "duty cycle".

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, inductive field

antennae are generally available to one of ordinary skill in the art and comprise simple elements that make them easy to manufacture.

Regarding Applicant's remarks directed toward claim 17, Kraus does appear to meet the claim language limitations where matching logic unit 50 allows the long-range telemetry device to be operated at substantially the same effective data rate as the close-range telemetry device.

The factual basis for the rejection of claim 29 comprises the teaching that the electro-medical implant may comprise a telemetry device for the exchange of data with an external apparatus to a cardiac pacemaker.

Regarding claim 36, when the device of Kraus is operating, clearly a channel of communication is open.

The discussion regarding "duty cycle" above applies equally to claim 41 and starting a test is supported by the Kraus reference, see for example, col.5, lines 14-15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kraus et al '559.

Kraus et al disclose an implantable medical device comprising a near field antenna 47 and a far field antenna 49. See Fig. 7. Kraus et al further teach the electro-medical implant may comprise a telemetry device for the exchange of data with an external apparatus to a cardiac pacemaker comprising the telemetry having both the near field antenna and the far field antenna.

Regarding claims 1 and 37, one of ordinary skill in the art would have found it obvious to inductively couple the close-range antenna 47 because inductive field antennae are easy to manufacture and inexpensive and offer limited field strength.

Regarding claims 3-7, col. 6, lines 60-63 teach the antenna can be a simple wire loop or an open wire. In view of this teaching, one of ordinary skill in the art would have found it obvious to provide a coil, dipole, monopole, a conductor of a lead, or a circumferential antenna for the medical device because these configurations are mere extensions of a wire loop or an open wire.

Regarding claim 13, the examiner is interpreting an external coil to comprise antenna 15 connected to a programmer comprising external apparatus 2.

Regarding claims 17-20, 23-25 and 28 the examiner is interpreting the adaptation of the modulation programming for a respective telemetry to be met using matching logic unit 50 connected to the telemetry unit 45.

Regarding claim 21, the examiner is interpreting switching unit 46.1 to comprise a device to select one of the wireless transmitter for transmitting an outbound signal.

Regarding claims 26 and 27, one of ordinary skill in the art would have found it obvious to decode data received and store data in the memory of the implantable device based on an inbound signal because Kraus et al teach device 7 can transmit data which are read out of the implant by way of a first interface device 6 in any suitable format.

Regarding claim 36, one of ordinary skill in the art would have found it obvious to store data in memory in the implanted device and operate the device based on the memory because the pacemaker would not be proximate to a programmable source for extended periods of time when the patient is mobile.

Regarding claim 41, col. 5, lines 14-15 teach a key may be used for sending short messages to a service center to test a SMS channel. One of ordinary skill in the art would have found it obvious to power the far field antenna 49 after receiving a far field key signal because starting a test requires similar antenna initiation as powering a transmitter.

Regarding claims 43-45, one of ordinary skill in the art would have found it obvious to continuously power the far field receiver after receiving a suspend duty cycle signal because switching unit 46.1 is capable of switching between either the long-range or the close-range antennae and separate energy storage means 51 and 52 allow for the continuous powering when triggered by a key to suspend the duty cycle.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Manuel whose telephone number is (571) 272-4952.

George Manuel
Primary Examiner
Art Unit: 3762